



Placer County Air Pollution Control District

California Environmental Quality Act Thresholds of Significance

Justification Report

Placer County Air Pollution Control District
110 Maple Street
Auburn, CA 95603

October 2016

LIST OF ACRONYMS

AB	Assembly Bill
APS	Alternative Planning Strategy
ARB	California Air Resources Board
BACT	Best Available Control Technology
BAU	Business as Usual
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CEQA	California Environmental Quality Act
CO ₂ e	Carbon Dioxide equivalent
EIR	Environmental Impact Report
GHG	Greenhouse Gas
GHGRP	Greenhouse Gas Reduction Plan
LCFS	Low Carbon Fuel Standard
MT	Metric Tons
NO _x	Oxides of Nitrogen
NSR	New Source Review
ROG	Reactive Organic Gases
SB	Senate Bill
SP	Service Population (Residents + Employees)
PM ₁₀	Particulate Matter smaller than 10 microns
USEPA	United States Environmental Protection Agency

Executive Summary

Thresholds of Significance are used to determine the level of significance for air quality impacts from any given land use project. CEQA encourages each public agency to develop and publish thresholds of significance that the agency uses in the determination of the significance of environmental effects.

Since the early 2000s, when the Placer County Air Pollution Control District (District) first established its recommended CEQA thresholds of significance for air quality, there have been tremendous changes that affect the quality and management of the air resources in Placer County. For example, ambient air quality standards for criteria pollutants, at both the state and federal levels, have become increasingly more stringent.

Additionally, with the enactment of SB 97, California’s lawmakers expressly recognized the need to analyze greenhouse gas emissions as a part of the CEQA process. As part of the mandates in SB 97, the Office of Planning and Research (OPR) amended the CEQA Guidelines to include the analysis and mitigation of greenhouse gas (GHG) emissions, which became effective on March 18, 2010.

For the reasons stated above, and to further the goals of District objectives, the District has undertaken an effort to review all of its currently-recommended CEQA thresholds for criteria pollutants, revise them as appropriate, and develop new thresholds for GHG where appropriate. The overall goal of this effort is to develop CEQA significance criteria that ensure new development mitigate its contribution of significant air quality impacts in an effort to assist the region in attaining the air quality standards and to not interfere with State efforts to reduce greenhouse gas emissions, as they relate to land use development.

This document has been prepared to provide the necessary substantial evidence in support of the thresholds of significance that the District developed. The proposed CEQA thresholds of significance will be submitted to the District’s Governing Board for adoption in October 2016. Once the proposed CEQA thresholds are adopted, the District’s CEQA Air Quality Handbook will be updated to include these thresholds. The District will then recommend lead agencies within Placer County use the adopted thresholds of significance when considering the significance of criteria pollutants and GHG impacts of new projects subject to CEQA.

Criteria Pollutant Thresholds

Staff recommends that the Board of Directors adopt the following significance thresholds for criteria pollutants:

- 1) Construction Threshold of 82 pounds per day for Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx), and particulate matter smaller than 10 microns (PM10),
- 2) Operational Threshold of 55 pounds per day for ROG, NOx and 82 pounds per day for PM10, and
- 3) Cumulative Threshold of 55 pounds per day for ROG, NOx and 82 pounds per day for PM10.

Table E-1 Criteria Pollutant Thresholds

	Construction Phase			Operational Phase Project-Level			Operational Phase Cumulative-Level		
	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)	ROG (lbs/day)	NOx (lbs/day)	PM ₁₀ (lbs/day)
Proposed	82	82	82	55	55	82	55	55	82
Current	82	82	82	82	82	82	10	10	N/A

The daily maximum emission thresholds represent an emission level below which the project’s contribution to criteria pollutant emissions would be deemed less than significant. This level of emissions is equivalent to a project size of approximately 617 single-family dwelling units, or a 249,100 square feet commercial building.

Greenhouse Gas Thresholds

In addition, Staff will also recommend that the Board of Directors adopt the following significance thresholds for GHG:

- 1) Bright-line Threshold of 10,000 metric tons of CO₂e per year for the construction and operational phases of land use projects as well as the stationary source projects
- 2) Efficiency Matrix for the operational phase of land use development projects when emissions exceed the De Minimis Level, and
- 3) De Minimis Level for the operational phases of 1,100 metric tons of CO₂e per year.

Table E-2 GHG Thresholds

Bright-line Threshold 10,000 MT CO ₂ e/yr			
Efficiency Matrix			
Residential		Non-residential	
Urban	Rural	Urban	Rural
(MT CO ₂ e/capita)		(MT CO ₂ e/1,000sf)	
4.5	5.5	26.5	27.3
De Minimis Level 1,100 MT CO ₂ e/yr			

GHG emissions from projects that exceed 10,000 MT CO₂e/yr would be deemed to have a cumulatively considerable contribution to global climate change. For a land use project, this level of emissions is equivalent to a project size of approximately 646 single-family dwelling units, or a 323,955 square feet commercial building.

The De Minimis Level for the operational phases of 1,100 MT CO₂e/yr represents an emissions level which can be considered as less than cumulatively considerable and be excluded from the further GHG impact analysis. This level of emissions is equivalent to a project size of approximately 71 single-family units, or a 35,635 square feet commercial building.

Projects with GHG emissions which exceed the De Minimis Level of 1,100 MT CO₂e/yr, but less than 10,000 MT CO₂e/yr can still be found less than cumulatively considerable when the result of project related efficiency analysis would meet one of conditions in the efficiency matrix for the applicable land use setting and land use type provided.

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Background & Purpose

The California Legislature enacted California Environmental Quality Act (CEQA) in 1970. CEQA requires that public agencies consider the potential adverse environmental impacts of any project that a public agency proposes to carry out, fund or approve. Under CEQA, the lead agency shall prepare an environmental document assessing the projects' potential impacts. An Environmental Impact Report (EIR) will be prepared whenever it can be fairly argued (the "fair argument" standard), based on substantial evidence¹, that a project may have a significant effect on the environment, even if there is substantial evidence to the contrary (CEQA Guidelines § 15064). CEQA requires that the lead agency review not only a project's direct effects on the environment, but also the cumulative impacts of a project and other projects causing related impacts. When the incremental effect of a project is cumulatively considerable, the lead agency must discuss the cumulative impacts in an EIR².

While CEQA requires agencies to analyze and mitigate potentially significant project impacts, neither CEQA³ nor its implementing guidelines⁴ establish specific significance thresholds. The State's CEQA Guidelines do encourage public agencies to adopt significance thresholds⁵, which are defined as an identifiable quantitative, qualitative or performance level established to measure an environmental effect⁶. If a project cannot meet the performance level, the impact will normally be determined to be "significant" by the agency; conversely, if a project can meet the performance level, the impact normally will be determined to be "less than significant".

As a local public agency with primary responsibility for overseeing air pollution sources in Placer County, the Placer County Air Pollution Control District (District) takes an active part in the inter-governmental review process under CEQA. In most cases, the District acts as a commenting agency that reviews and comments on the air quality assessment in environmental documents for land use projects distributed by lead agencies. As part of the effort to accomplish the air district's duties under CEQA, the District conducts a CEQA project review program and provides recommendations to lead agencies based on modeling techniques and recommended thresholds of significance. In doing so, the District determines air quality related impacts resulting from a land use project, including the recommendation of feasible mitigation measures to reduce potentially significant impacts.

Historically, the District has applied the concept of the District's new source review (NSR) rule requirement to recommend significance thresholds for criteria pollutants under the CEQA review program. The existing recommended significance thresholds for criteria pollutants were established in 2001 based on the previous NSR rule adopted in 1994. Since that time, the federal and state ambient air quality standards have been changed several times. District staff believes it is necessary to reassess the existing significance thresholds for criteria pollutants that are used to determine the potential air quality impacts from land use development.

¹ As defined in the California Public Resources code (§21080(c)), "Substantial evidence" includes facts, reasonable assumptions, predicted upon facts, or an expert opinion supported by facts, but does not include argument, speculation, unsubstantiated opinion or narrative, evidence that is clearly inaccurate, erroneous, or evidence of social or economic impacts that do not contribute to, or are not caused by, physical impacts on the environment.; *see also* CEQA Guidelines §15384.

² California Code of Regulations, Title 14, Chapter 3, Section 15064

³ California Public Resources Code, Division 13

⁴ California Code of Regulations, Title 14, Chapter 3

⁵ California Code of Regulations, Title 14, Chapter 3, Section 15064.7

⁶ California Code of Regulations, Title 14, Chapter 3, Section 15064.7

Additionally, the District has not formally established recommended CEQA thresholds for greenhouse gas (GHG) emissions. The District has historically worked with local jurisdictions and CEQA practitioners on selecting the appropriate thresholds for each jurisdiction. Due to recent court case findings regarding CEQA related GHG impact analyses, District staff has concluded it would be sensible to establish GHG significance thresholds to recommend to the local jurisdictions for use in analyzing and mitigating GHG impacts for projects within Placer County.

Although CEQA does not require that commenting agencies adopt significance thresholds for their CEQA review processes, the District recognizes that thresholds with well-defined justification will assist the local jurisdictions with their obligation to analyze and make significance determinations regarding criteria pollutants and GHG emission impacts from land use projects. Therefore, the District developed GHG thresholds in concert with the reassessment of criteria pollutant thresholds. The District believes the assessment of all significance thresholds will meet the best interests of the local jurisdictions in evaluating criteria pollutants and GHG impacts under CEQA.

This report provides the evidence in support of the proposed CEQA thresholds of significance developed by the District. If the proposed thresholds are adopted by the District's Governing Board, the District will recommend that lead agencies within Placer County use the proposed thresholds of significance in this report when determining the significance of criteria pollutants and GHG impacts of new projects subject to CEQA.

Justification for Revising the Significance Thresholds for Criteria Pollutants

Introduction

The District's framework for revising the criteria pollutant thresholds for land development projects is based on comprehensive policy and regulatory analysis, as well as considerable technical evaluation of development trends in Placer County.

Placer County is located within the Sacramento Federal Ozone Nonattainment Area (SFONA) -- an area with air quality which does not currently meet the federal ozone standard. The ozone standard was established by the United States Environmental Protection Agency (USEPA) to help achieve one of the primary federal Clean Air Act goals -- to "protect and enhance the quality of the nation's air resources so as to promote the public health and welfare and the productive capacity of its population." Currently, the SFONA ranks as the sixth worst area in the nation for ozone air pollution⁷.

The New Source Review (NSR) program⁸, established by the U.S. Congress as part of the 1977 Clean Air Act Amendments, requires nonattainment areas to permit and control emissions from stationary sources. It is the regulatory foundation requiring local air districts to establish NSR rules. Emission offset requirements specified within the local air district's NSR rules are set consistent with the nonattainment classification of the federal and state ozone ambient air quality standards, pursuant to the California Health and Safety Code.

It is the District's position that any "nonattainment designation" is a significant environmental issue for air quality impacts because all sources in the area, including direct and indirect sources, contribute emissions that result in air quality deterioration. Therefore, the nonattainment status should be addressed within environmental documents and can be used within the CEQA process as a basis to establish thresholds of significance. The question to evaluate air quality impacts in the CEQA Guideline's "Environmental Checklist Form"⁹ affirms this position.

Furthermore, the District has concluded that there is a direct nexus between direct emissions from stationary sources and indirect emissions associated with land use sources, where the emissions from a stationary source are no different than the emissions from land use projects. It is indistinguishable if the pollution is emitted by a stationary facility, or vehicle activities resulting from a land use project. The impacts from either one or both sources will influence the region's ability to attain health-based air quality standards. If the emissions from stationary sources need to be addressed and mitigated as required by regulations, the emissions from land use related sources also need to be addressed and mitigated using the same criteria. The District believes that using the emission offset requirement for stationary sources is appropriate to establish the basis for significant criteria in order to evaluate a land use project's related air quality impacts. It is common practice for air districts to establish their recommended significance thresholds for criteria pollutants consistent with the NSR emission offset thresholds.

⁷ American Lung Association, the State of the Air 2016, "Most Polluted Cities: Ozone". <http://www.lung.org/our-initiatives/healthy-air/sota/city-rankings/most-polluted-cities.html>. Accessed 08-15-16

⁸ EPA NSR Program website, <http://www.epa.gov/NSR/>

⁹ CEQA Guideline Appendix G "Environmental Checklist Form", Section III-Air Quality question (c). http://ceres.ca.gov/ceqa/guidelines/pdf/appendix_g-3.pdf

Although not formally adopted, the District established the significance thresholds of 82 pounds per day (lbs/day) based on the previous NSR's emission offset requirement in 2001, pursuant to the Health and Safety Code, for Reactive Organic Gases (ROG), Oxides of Nitrogen (NOx), and particulate matter smaller than 10 microns (PM10). In addition, the District has also historically applied a threshold of 10 lbs/day to recommend mitigation measures for the projects, consistent with the Best Available Control Technology (BACT) requirement from the NSR rule. District staff has recommended local jurisdictions apply these thresholds since 2001. Table 1 shows the existing criteria pollutant thresholds for operational phase

Table 1 Criteria pollutant thresholds for operational phase

Criteria Pollutant Thresholds						
	Operational Phase Project-Level			Operational Phase Cumulative-Level		
	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
existing	82	82	82	10	10	n/a

The District Board adopted the amendment of the NSR rule in 2004. The amendment was required, by the State's Ozone Transport Mitigation Regulation¹⁰, to lower the District's NSR emission offset thresholds because the District is located in the Broader Sacramento Area and is upwind of the San Joaquin Valley Air Basin. Since the San Joaquin Unified Air Pollution Control District has an offset threshold of 10 tons per year (tons/yr) of ROG and NOx, all air districts in the Broader Sacramento Area, including Placer, amended the emission offset threshold from the previous 15 tons/yr threshold to 10 tons/yr. The current emission offset threshold of 10 tons/yr (or 55 lbs/day) is required for ROG and NOx by the District's Rule 502 Section 303 Offset Requirement¹¹.

Key considerations

The District considered the following factors when reassessing the CEQA significance thresholds for criteria pollutants:

- The current emission offset requirement required by the District's NSR rule.
- The regional goal to attain the federal and state ambient air quality standards.
- The historical CEQA projects reviewed by the District over the last thirteen years (2003-2015).
- The CEQA significance thresholds adopted by other air districts in the Sacramento Area.

Current emission offset requirement from the District's NSR rule

In California, many of the local air districts have adopted CEQA thresholds based on their NSR emission offset requirement. The NSR rule requires stationary sources to offset emissions when they emit pollutants in excess of certain levels, and the emission offset thresholds are based on the nonattainment classification for the air quality standards. Currently, the emission offset threshold in the District's NSR rule (Rule 502) for both ROG and NOx is 10 tons/yr. In addition, the emission offset threshold for PM10 is 15 tons/yr. The offset thresholds for ROG and NOx are the most stringent requirements of both federal and state regulations.

¹⁰ California Code of Regulation, Title 17 Section 70600 and 70601

¹¹ PCAPCD Rule 502 New Source Review <http://www.placer.ca.gov/departments/air/rules>

Since the USEPA revised the federal ambient air quality standards for ozone in October 2015 to be the same level of ozone standards established by the California Air Resources Board (CARB), it is appropriate timing to update the significance thresholds in consistent with the District’s current NSR rule requirement. The District believes that the proposed criteria pollutant thresholds will be appropriate to evaluate and mitigate criteria pollutant impacts for land use projects in Placer County. Table 2 presents the proposed criteria pollutant thresholds based on the current District’s NSR requirement for project-level and cumulative-level impacts.

Table 2 Criteria pollutant thresholds for operational phase

Criteria Pollutant Thresholds						
	Operational Phase Project-Level			Operational Phase Cumulative-Level		
	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Proposed	55	55	82	55	55	82

The regional goal to attain the federal and state ambient air quality standards

The District is proposing to update the significance thresholds for criteria pollutants based on the NSR rule emission offset requirements. The proposed thresholds have been evaluated with consideration of the regional goal of attaining the federal and state air quality standards. The evaluation demonstrates that the proposed thresholds address the potential air quality impacts from new land use development in Placer County.

The District recognizes that the “nonattainment designation” is a significant environmental issue for air quality impacts because all sources in the area, including direct and indirect sources, contribute emissions that result in air quality deterioration. Therefore, nonattainment status should be taken into consideration in establishing thresholds of significance. Figure 1 chronologically presents the revisions of both federal and state ozone standards from 1990 to 2015. Since 1991, Placer County has been designated as nonattainment for both federal and state ozone standards. As more stringent standards are being promulgated, this District, along with the other air districts located within the Sacramento region, will face the challenge of reducing emissions from all sources in order to reduce the ozone concentrations. Most recently, USEPA revised the 8-hour ozone standard from 0.075 to 0.070 parts per million (ppm)¹².

Figure 1 Federal and State Ozone Standards from 1990-2015



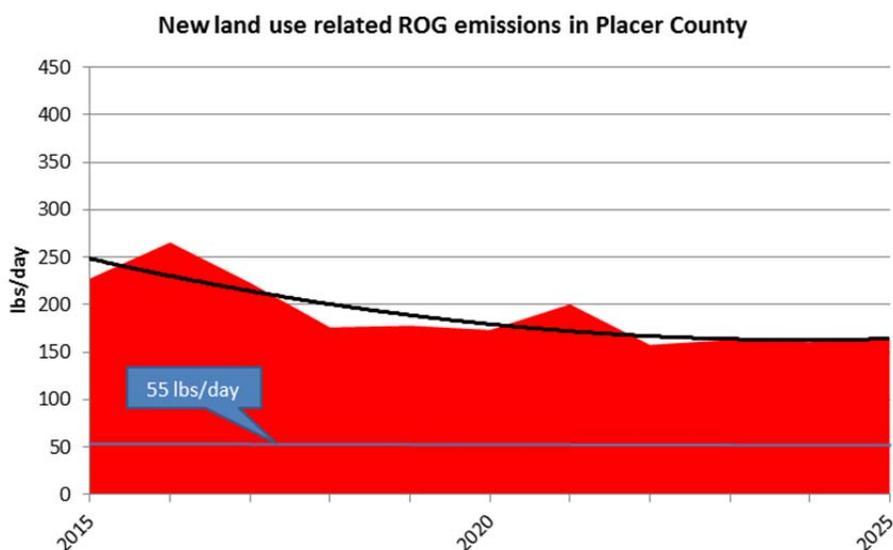
¹² Code of Federal Regulations, Final Rule. 2015 40 Part 50, 51, 52 et al. <https://www.gpo.gov/fdsys/pkg/FR-2015-10-26/pdf/2015-26594.pdf> Accessed 08-15-2016

The Federal Clean Air Act requires areas which do not meet the National Ambient Air Quality Standards (NAAQS) to develop an air quality management plan, known as the State Implementation Plan (SIP). The SIP is a comprehensive plan that describes how state and local measures for a nonattainment area will attain air quality standards. One of the SIP planning efforts is to develop the planning emission inventory for the nonattainment area to determine to what extent various sources within the area are responsible for ozone precursors (ROG and NOx) reduction. The baseline emissions are established, and then the inventory is projected into the future based on expected growth rates of population, housing, industrial/commercial activity, energy use, and motor vehicle travel. Accordingly, the potential emissions from new land use development are “budgeted” into the planning inventory since new land use developments are related to future growth.

Given that the emissions from expected growth are “budgeted” into the future emission projection, the evaluation of significance thresholds for CEQA review take into account the budgeted emissions from the growth in the planning inventory. The CEQA significance threshold is used to determine whether the proposed project would substantially contribute to considerable air quality impacts. The evaluation ensures that the significance threshold will accordingly address the air quality impacts from the anticipated future growth. Mitigation measures can then be identified to mitigate the project related air quality impacts and assist the region in attaining the federal and state ozone standards.

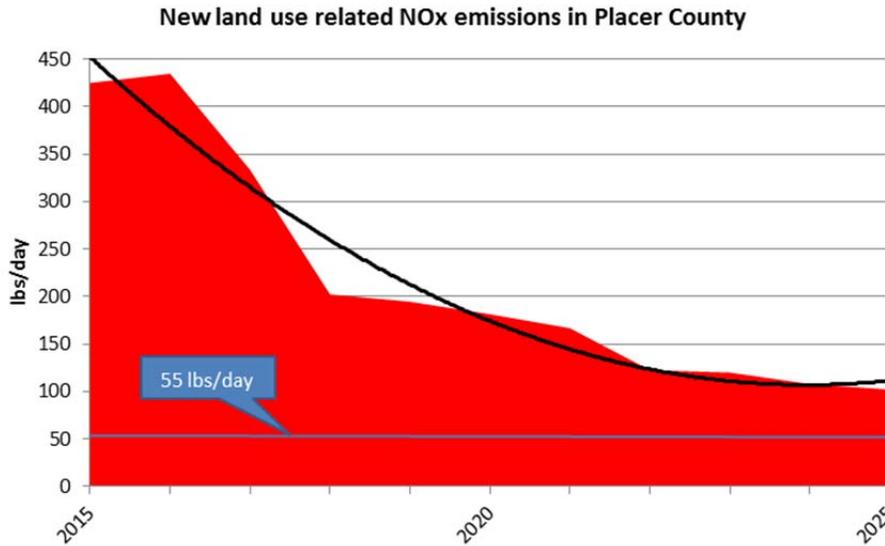
The District identified the emission projection in the regional planning inventory for Placer County by using the source categories identified in California Emission Estimator Model (CalEEMod)¹³. CalEEMod is a statewide land use emissions computer model designed to provide a uniform platform for government agencies, land use planners, and environmental professionals to quantify potential criteria pollutants and greenhouse gas emissions from a variety of land use projects. Consistent with the assumptions used in the planning inventory, the District analyzed the emission projection from 2015 to 2025 to explore the budgeted emissions for the growth in this 10-year period.

Figure 2 Placer land use related ROG emissions from the planning inventory



¹³ California Emission Estimator Model <http://www.aqmd.gov/caleemod/home>

Figure 3 Placer land use related NOx emissions from the planning inventory



Figures 2 and 3 show the future emissions forecasted in the planning inventory from new land use development anticipated to occur in Placer County from 2015 to 2025. The metric used to demonstrate emissions is presented in pounds per day (lbs/day). Both figures show that the overall ROG and NOx emissions anticipated from new land use development are higher than the proposed CEQA thresholds for ROG and NOx.

Table 3 Comparison of average land use related emissions from planning inventory and proposed significance thresholds

	ROG	NOx
Average of future land use emissions between 2015 and 2025 (lbs/day)	190	217
Proposed CEQA threshold (lbs/day)	55	55
% of proposed CEQA threshold to Average of future land use emissions	28.9%	25.3%

Furthermore, Table 3 compares the average land use related emissions and the proposed CEQA thresholds for ROG and NOx. Between 2015 and 2025, the average land use related emissions from new land use development is approximately 190 lbs/day and 217 lbs/day for ROG and NOx, respectively. If a proposed project will emit greater than 55 lbs/day of ROG or NOx emissions, it would be equivalent to 29% of ROG or 25% of NOx emissions budgeted within the planning inventory for future land use related development. As shown in Table 2, the District believes average land use related emissions from the planning inventory, in light of the proposed significance thresholds (55 lbs/day), represent reasonable criteria to analyze the significance of air quality impacts resulting from the contribution from new land use projects within Placer County in the future. Accordingly, appropriate mitigation measures can be identified to mitigate the air quality impacts associated with a new development’s contribution. Since the Placer County planning inventory is developed for the Sacramento Regional SIP, a future land use project’s implementation in Placer County shall not jeopardize the regional goal to attain the federal and state ozone standards.

The detailed analysis for the projected emissions in the planning inventory and the list of land use related source categories are presented in Appendix A.

District historical CEQA review data

Another factor used to evaluate the proposed thresholds was a review of the historical data from the District’s CEQA review program. The purpose of this review is to identify whether the proposed thresholds would trigger land use projects with substantially significant emission contributions to be considered “potentially significant”, thus requiring implementation of mitigation measures

According to the District’s historical data, 688 projects have been sent to the District from local jurisdictions in Placer County for CEQA review in the past thirteen (13) year period (2003-2015). District Staff used CalEEMod to estimate the potential emissions that would occur from buildout of the projects with a built out year of 2020, and ranked each project by its associated ROG and NOx emissions. Note that the projects analyzed did not include any development that was either determined by lead agencies to be categorically or statutorily exempt from CEQA, or development that was not considered to be a “project” as defined by CEQA.

Table 4 shows the results of the review, comparing the proposed thresholds and the historical CEQA review data. The District found that, for NOx emissions, with a threshold of 55 lbs/day, 12% of projects would exceed the threshold, with an emission contribution rate of 82% of total NOx emissions. The historical data shows that an additional 15 projects within a 13-year period (or approximately one project per year) would exceed the threshold for recommending additional mitigation, when comparing with the threshold of 82 lbs/day. For ROG emissions, a threshold of 55 lbs/day would capture 11% of total projects, with an emission contribution rate of 82%.

Table 4 Placer County historical CEQA review for ROG and NOx

Placer County Historical Data in comparison to threshold levels						
	ROG			NOx		
Threshold (lbs/day)	# of projects above threshold	% of projects above threshold	Emission Contribution	# of Projects above thresholds	% of projects above threshold	Emission Contribution
82 (existing)	59	9%	78%	67	10%	79%
55 (proposed)	74 (15 + 59)	11%	82%	82 (15 + 67)	12%	82%
10 (existing)	218 (144 + 74)	32%	94%	261 (179 + 82)	38%	95%

For the cumulative threshold, by revising the thresholds of NOx from 10 lbs/day to 55 lbs/day, the District found that roughly 26% of total projects would be relieved from recommending additional mitigation measures, which are 179 projects less than when using the 10 lbs/day threshold. For ROG, approximately 21% of total projects would be relieved from recommending additional mitigation measures when using the threshold of 10 lbs/day. From an economic standpoint, District staff believes the proposed threshold will provide relief for smaller development projects, which would not exceed the proposed threshold. Although it seems that the emissions

captured could be lost by updating the cumulative threshold from 10 lbs/day to 55 lbs/day, in review of the planning inventory and budgeted emissions for projected growth, the District does not foresee that the loss in mitigated emissions would jeopardize the region’s attainment of federal and state standards.

Accordingly, the District’s historical CEQA review data shows that the proposed thresholds do not cause a significant effect on land use projects in the past thirteen years and would still capture substantial emissions from new land use projects for mitigation. It can be expected that if the proposed thresholds are adopted and used for future project reviews, the results will be similar to those of the historical data review.

Adopted CEQA thresholds in the Sacramento Region

In addition to evaluating the proposed thresholds by the ROG and NOx planning inventory in Placer County and the historical CEQA review data for the past thirteen years, another important consideration is ensuring that the proposed thresholds are as consistent as possible with those of adjacent air districts in the Sacramento area, so as not to put the County at a disadvantage when local jurisdictions seek to attract important economic development projects.

Figure 4 and Figure 5 present 2015 ROG and NOx emissions contributed from five (5) air districts in the Sacramento Federal Ozone Nonattainment Area (SFONA)¹⁴. The figures show that the emissions within the District’s jurisdiction (in green) are the 3rd largest portion in the Sacramento area. The emissions from the jurisdictions of the Sacramento Metropolitan Air Quality Management District (SMAQMD), Yolo-Solano Air Quality Management District (YSAQMD), and the District are approximately 92% of total emissions in the Sacramento area.

Figure 4 2015 SFONA ROG Inventory

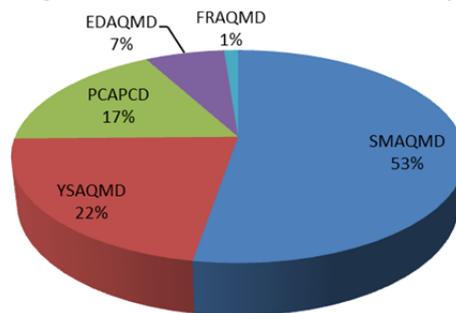
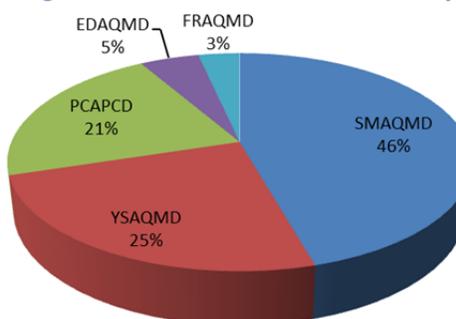


Figure 5 2015 SFONA NOx Inventory



¹⁴ The Sacramento federal ozone nonattainment area includes all of Sacramento County and portions of El Dorado, Feather River, Placer, and Yolo County.

Although these five air districts are located within the same nonattainment area, the District recognizes there is no regional consistency by each air district in the Sacramento area in the establishment of significance thresholds. Table 5 summarizes the District’s proposed thresholds, as well as the current CEQA thresholds adopted by each air district in the Sacramento area.

Table 5 CEQA thresholds for operational phase in the Sacramento Region

Thresholds in the Region					
Districts	Operational			Cumulative	
	ROG	NOx	PM	ROG	NOx
	lbs/day			lbs/day	
PCAPCD	55	55	82	55	55
SMAQMD	65	65	82/80*	Operational threshold, plus SIP consistency	
YSAQMD	55**	55**	80	Operational threshold, plus SIP consistency	
FRAQMD	25	25	80	25	25
EDAQMD	82	82	82	Operational threshold, plus SIP consistency	

*SMAQMD PM10 = 80 lbs/day and PM2.5 = 82 lbs/day
 **YSAQMD Operational Thresholds for ROG and NOx are expressed in tons per year (10), but shown in lbs/day metric.

YSAQMD currently has the most recently updated significance thresholds for ROG and NOx, which are based on the current NSR requirements, at 55 lbs/day. Feather River AQMD (FRAQMD) has the most stringent thresholds (25 lbs/day) of all the air districts. El Dorado County AQMD (EDAQMD) has thresholds of 82 lbs/day based on its NSR rule adopted in 2002, and they have not been updated in light of newer, more stringent standards and emission offset requirements.

The SMAQMD thresholds of 65 lbs/day were developed based on the SIP commitments in the 1994 Sacramento Area Regional Ozone Attainment Plan for achieving the previous federal 1-hour ozone standard¹⁵. Although it seems that the SMAQMD thresholds are more lenient than the District’s proposed thresholds, there is additional mitigation required by the SMAQMD for projects exceeding its operational thresholds of 65 lbs/day. The SMAQMD requires the project component to develop an air quality mitigation plan for ROG and NOx demonstrating a 15% emission reduction for projects considered in the SIP, and 35% for projects not considered in the SIP¹⁶. The additional mitigation required (either 15% or 35%) by the SMAQMD will result in additional costs to project implementation, compared with the YSAQMD and the District, which do not require the minimum percentage of mitigation. In considering this, District staff believes that the District’s proposed CEQA thresholds will be as consistent as possible with SMAQMD and YSAQMD. Applying the District’s proposed

¹⁵ SMAQMD has revised its CEQA thresholds for particulate matters based on the NSR requirement and will consider revising the other thresholds at a later date. <http://www.airquality.org/bod/2015/MayAgendaItem15-ProposedCEQAThresholdsofSignificanceforPMEmissionsBd.Ltr.pdf>

¹⁶ SMAQMD CEQA Mitigation <http://www.airquality.org/ceqa/mitigation.shtml>

thresholds should not cause adversity to the local jurisdictions in Placer County for land use development competition.

Corresponding size of project to the proposed thresholds

District staff uses the CalEEMod to estimate the potential project size corresponding to the proposed CEQA thresholds for criteria pollutants, as shown in Table 6. The detailed modeling scenario assumptions and settings and modeling outputs are presented in Appendix B.

Table 6 Corresponding size of project to proposed NOx threshold (55 lbs/day)

Residential (# of units)			Commerical/Industrial (sf)		
Single family	Condo	Apartment	General Commercial	General Office	General Industrial
617	868	911	249,099	648,661	894,262

Thresholds for construction phase

The District does not propose any changes to its currently recommended construction thresholds for ROG, NOx, and PM10. These emissions are considered temporary in nature, and result in short-term impacts which are not anticipated to jeopardize the region’s ability to attain federal and state standards. Table 7 shows the significance thresholds for the construction phase, which will be submitted to the District Board for adoption.

Table 7 Proposed significance thresholds for construction phase

Criteria Pollutant Thresholds			
	Construction Phase		
	ROG	NOx	PM ₁₀
	(lbs/day)	(lbs/day)	(lbs/day)
Proposed	82	82	82

Conclusion

District staff propose to update the significance thresholds based on the current emission offset thresholds from the District’s NSR rule and has evaluated the proposed thresholds by 1) the land use related emissions from the planning inventory, 2) the regional goal to attain the federal and state air quality standards, 3) the District’s historical CEQA review data, and 4) the current CEQA thresholds adopted by the air districts within the Sacramento area. District staff concludes that the proposed thresholds shown in Table 8 shall address the potential air quality impacts from new land use projects in Placer County.

Table 8 Proposed criteria pollutant significance thresholds for adoption

Criteria Pollutant Thresholds									
	Construction Phase			Operational Phase Project-Level			Operational Phase Cumulative-Level		
	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀	ROG	NOx	PM ₁₀
	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)	(lbs/day)
Proposed	82	82	82	55	55	82	55	55	82

Justification for Developing the New Significance Thresholds for GHG

Introduction

The District's framework for developing a GHG threshold for land development projects is based on comprehensive policy and regulatory analysis, as well as considerable technical evaluation of development trends in Placer County.

On June 1, 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05¹⁷. Although it was not included in state law, Executive Order S-3-05 set an ultimate goal for California to reduce GHG emissions to 80 percent below 1990 levels by 2050.

The California Global Warming Solutions Act (AB32) signed into law in September 2006, required statewide GHG emissions to be reduced to 1990 levels by 2020¹⁸. AB32 established regulatory, reporting, and market mechanisms to achieve this goal and provides guidance to help attain quantifiable reductions in emissions efficiently, without limiting population and economic growth. CARB is the state agency primarily responsible for implementing AB32. In order to implement AB32, CARB adopted a Scoping Plan in 2008¹⁹ that outlined actions necessary to reduce statewide GHG emissions. The Scoping Plan estimated that California would need to reduce emissions by 29 percent from a "business as usual" (BAU) scenario to achieve AB32 emission reduction goals.

With the enactment of Senate Bill (SB) 97, California's lawmakers identified the need to analyze greenhouse gas emissions as a part of the CEQA process. As part of the mandates in SB 97, the Office of Planning and Research (OPR) amended the CEQA Guidelines to include the analysis and mitigation of greenhouse gas (GHG) emissions, which became effective on March 18, 2010²⁰. Even in the absence of adopted CEQA thresholds for GHG emissions, lead agencies are required to analyze the GHG emissions of proposed projects and must reach a conclusion regarding the significance of those emissions.

Senate Bill (SB) 32 was signed by Governor on September 8, 2016, to establish a California GHG reduction target of 40 percent below 1990 levels by 2030²¹. California is on track to meet or exceed the current target of reducing greenhouse gas emissions to 1990 levels by 2020, as established in the California Global Warming Solutions Act of 2006 (AB 32). California's new emission reduction target of 40 percent below 1990 levels by 2030 will make it possible to reach the ultimate goal of reducing emissions 80 percent under 1990 levels by 2050.

The District has not previously established thresholds for GHG impacts, but has historically recommended a determination of significance to be disclosed and be based on the Project's potential to interfere with statewide GHG reduction goals established by regulatory requirements. In general, local jurisdictions apply the statewide emission reduction goals as identified by the CARB Scoping Plan to address the GHG impacts from new land use projects. However, a recent court case²² raises concerns as to whether consistency with AB32's statewide

¹⁷ California Executive Order S-3-05, (June 2005) <https://www.gov.ca.gov/news.php?id=1861>

¹⁸ California Assembly Bill No. 32, [http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf](http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_0001-0050_ab_32_bill_20060927_chaptered.pdf).

¹⁹ AB32 required CARB to adopt a Scoping Plan to describe the approach that California will take to reduce statewide GHG emissions to 1990 levels by 2020. http://www.arb.ca.gov/cc/scopingplan/document/adopted_scoping_plan.pdf

²⁰ https://www.opr.ca.gov/s_ceqaandclimatechange.php

²¹ California Senate Bill No. 32, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32

²² *Center for Biological Diversity v. California Department of Fish and Wildlife*. <http://www.courts.ca.gov/documents/7-s217763-rpi-newhall-land-farming-co-answer-brief-merits-100914.pdf>

emission reduction goals is an appropriate significance threshold for determining GHG impacts from a local land use development project.

The District believes it is imperative to establish GHG significance thresholds which facilitate a uniform process for land use projects located in Placer County, while assisting the local jurisdictions with analyzing and identifying potentially significant GHG impacts from land use projects. The District's proposal is to develop new GHG thresholds based on Placer County's special conditions, to assist the State with achieving its GHG reduction goals, by identifying its share of the GHG reductions outlined in regulatory policies and state requirements.

Key considerations

The District considered the following factors when developing the CEQA thresholds for GHG emission impacts:

- The GHG significant thresholds adopted by other air districts.
- The historical CEQA projects reviewed by the District over the last thirteen years (2003-2015).
- The applicable statewide regulatory requirements by 2030.
- The special geographic features in Placer County.

The District's approach to developing significance thresholds for GHG emissions is to identify the emissions level for which a project would be expected to substantially contribute a mass amount of emissions and would conflict with existing statewide GHG emission reduction goal adopted by California legislation. The District has developed a 3-step process for determining significance which includes 1) a bright-line threshold, 2) a De Minimis level, and 3) an efficiency matrix for projects that fall between the Bright-line and the De Minimis level.

Review of existing adopted CEQA significance thresholds for GHG impacts

District staff reviewed the existing GHG thresholds adopted by the other air districts in California to explore their foundations and to develop Placer County thresholds which are supported by substantial evidence. The review included the data availability, methodologies for establishing the thresholds, and feasibility of thresholds for Placer County.

SMAQMD - Sacramento Air Quality Management District (2014)

CONSTRUCTION

- 1) Bright-Line Thresholds: Construction phase of project – 1,100 metric tons (MT) of Carbon Dioxide Equivalent per year (CO₂e/yr);
Although not adopted, the SMAQMD does recognize amortizing construction emissions into the operational years.

OPERATIONAL

- 2) Consistency with a qualified climate action plan or greenhouse gas reduction plan that meets the requirements of CEQA Guidelines section 15183.5 (b);
- 3) Bright-Line Thresholds: Operational phase of a land development project – 1,100 MT CO₂e/yr;

STATIONARY

- 4) Stationary Source threshold: 10,000 MT CO₂e/yr (based on 90% capture rate for stationary source emissions);
- 5) Consistency with the ARB Scoping Plan: Demonstrate 21.7% reduction from BAU scenario, consistent with AB32 goals.

SLO APCD- San Luis Obispo Air Pollution Control District (2012)

CONSTRUCTION

- 1) Amortized into the operational emissions.

OPERATIONAL

- 2) Qualitative Reduction Strategies (e.g., Climate Action Plans): a qualitative threshold that is consistent with AB32 Scoping Plan measures and goals;
- 3) Bright-Line Threshold: 1,150 MT CO₂e/yr
- 4) Efficiency-Based Threshold: 4.9 MT CO₂e/SP(Service Population)/yr based on the statewide GHG emission inventory
 - a) per capita basis (residential only projects); or
 - b) "Service population" basis (the sum of the number of jobs and the number of residents provided by a mixed-use project).

STATIONARY

- 5) Stationary Source threshold: 10,000 MT CO₂e/yr (based on 90% capture rate for stationary source emissions).

BAAQMD - Bay Area Air Quality Management District (2010)

CONSTRUCTION

- 1) Construction emissions were not included in the BAAQMD's GHG thresholds development process.

OPERATIONAL

- 2) Consistency with a qualified Climate Action Plan
- 3) Bright-line threshold of 1,100 MT CO₂e/yr
- 4) Efficiency-Based Threshold:
 - a) Residential projects: 6.7 MT CO₂e/capita/yr
 - b) Mixed use projects: 4.6 MT CO₂e/service populations (project jobs + project residents)/yr.
- 5) For tiering, projects consistent with a SB 375 Sustainable Communities Strategy or Alternative Planning Strategy would be considered less than significant for transportation-related GHG emissions, but not necessarily for other GHG emissions. Review against the bright-line threshold for non-transportation related emissions would still be required.

STATIONARY

- 6) Stationary Source threshold: 10,000 MT CO₂e/yr (based on 95% capture rate for stationary source emissions).

The above air districts are the only three (3) air districts that have adopted CEQA GHG significance thresholds for both land use projects and stationary source projects. Table 9 summarizes the current GHG thresholds adopted by those three air districts in California. In addition to three air districts in Table 9, there are six (6) other air districts which only adopted the significance thresholds for stationary source projects²³.

²³ Six air districts adopted GHG thresholds for stationary source project: East Kern County APCD (25,000 MTCO₂e/yr); Monterey Bay Unified AQMD (10,000 MTCO₂e/yr); Santa Barbara APCD (10,000 MTCO₂e/yr); Mojave Desert AQMD (100,000 MTCO₂e/yr); Antelope Valley AQMD (100,000 MTCO₂e/yr); and San Joaquin Valley APCD (29% below BAU).

Table 9 Current GHG Thresholds adopted by air districts in California

AIR DISTRICT	LAND USE THRESHOLDS			STATIONARY SOURCE THRESHOLDS
	BRIGHT LINE	BAU	EFFICIENCY	BRIGHT LINE
	(MT CO _{2e} /yr)		(MT CO _{2e} /yr) per cap. or SP	(MT CO _{2e} /yr)
SMAQMD	1,100	21.7% below BAU (2020)*	--	10,000
SLOAPCD	1,150		4.9 (Residential)	10,000
BAAQMD	1,100*		6.7 (Residential)* 4.6 (Mixed-Use)*	10,000

*Thresholds no longer recommended.

The State set up the goal to reduce GHG emissions without limiting population and economic growth. The District’s concept is to look for a reasonable threshold which would capture larger–scale projects with significant GHG emission contributions which should implement mitigation. Since several air districts have adopted Bright-line GHG thresholds, District staff looked into applying one of these existing thresholds to Placer County. To evaluate the potential impact to the land use projects in Placer County, staff reviewed the District’s historical CEQA review data by selecting 1) 10,000 MT CO_{2e}/yr, 2) 1,100 MT CO_{2e}/yr; and 3) the 90 percent of emissions capture that is one of the methodologies suggested by California Air Pollution Control Officer Association (CAPCOA) to establish a quantitative threshold²⁴.

District historical CEQA review data

The purpose of evaluating the District’s historical CEQA review data is to identify whether the selected thresholds would trigger land use projects with substantially significant GHG emission contributions to be considered “potentially significant”, thus requiring implementation of mitigation measures.

There were 688 projects sent to the District for CEQA review in the past thirteen (13) year period (2003-2015). District Staff used CalEEMod to estimate the potential GHG emissions from all projects that would have been approved and built out as of 2020, and ranked each project by its associated GHG emissions. Note that these projects don’t include any development that was either determined by lead agencies to be exempt from CEQA, or development that was not considered to be a “project” as defined by CEQA. The District looked to this data to determine how the selected thresholds would impact land use project review in Placer County.

Table 10 shows the result of review when applying selected thresholds to the historical CEQA review data. The District found that with a threshold of 10,000 MT CO_{2e}/yr, 11% of projects would exceed this threshold, and those projects contribute approximately 82% of total GHG emissions of the 688 projects built-out. If applying the

²⁴ California Air Pollution Control Officer Association CEQA & Climate Change <http://www.capcoa.org/wp-content/uploads/2012/03/CAPCOA-White-Paper.pdf>

threshold of a 90% emission capture rate, the threshold would be at 4,000 MT CO₂e/yr, and about 19% of projects would exceed this threshold. When applying the threshold of 1,100 MT CO₂e/yr, the result shows about 47% of projects with emissions above 1,100 MT CO₂e/yr, and these projects contribute 97% of total GHG emissions from the 688 projects.

Table 10 Current GHG Thresholds adopted by air districts in California

Historical Data Review with Potential Emission Levels			
	# of projects above threshold	% of projects above threshold	Emission Contribution
10,000 (MT CO ₂ e/yr)	77	11%	82%
4,000 (MT CO ₂ e/yr)	134	19%	90%
1,100 (MT CO ₂ e/yr)	325	47%	97%

Establishing a Bright-line threshold for GHG impact analysis

As discussed in the criteria pollutant threshold justification, there is a direct nexus between direct emissions from stationary sources and indirect emissions associated with land use sources. GHG emissions, once emitted, are indistinguishable as to the source – “air pollution is air pollution” – and have the same detrimental effect on climate change regardless of the source. According to this concept, the District proposes 10,000 MT CO₂e/yr as a Bright-line threshold in Placer County for all projects (including stationary source projects) subject to CEQA, since this threshold has been used by CARB as a regulatory requirement²⁵ and was adopted by several air districts as a CEQA significance threshold for stationary sources. Table 10 demonstrates that 10,000 MT CO₂e/yr can be used to determine if a project would be considered a substantially large enough of a contribution to cumulative impacts and therefore significant in Placer County. A project which exceeds this proposed Bright-line threshold should identify mitigation to lessen the emissions for its cumulative impact.

Table 10 also presents two lower thresholds which would capture more emissions resulting from land use projects. However, the lower thresholds may expose smaller projects to unnecessary requirements. Table 11 presents the comparison of the proposed NO_x threshold and GHG thresholds because both pollutants are from combustion sources. The table shows that a GHG threshold of 4,000, or 1,100 MT CO₂e/yr, will result in more projects with potentially significant conclusions, compared to the proposed NO_x threshold of 55 lbs/day. The District believes that the proposed Bright-line threshold should focus on larger projects with the most significant GHG emissions and not expose smaller projects to unnecessary requirements. The threshold of 10,000 MT CO₂e/yr would meet this objective, as it would trigger 11% of projects with potentially significant conclusions, and would capture 82% of emissions, which is the same as the emission capture rate for the proposed NO_x threshold. The District concludes the threshold of 10,000 MT CO₂e/yr should be applicable to address the potential GHG impacts from a land use project and to identify appropriate mitigation to lessen GHG emissions for its cumulative impact.

²⁵ CARB Mandatory Greenhouse Gas Emissions Report Regulation <http://www.arb.ca.gov/regact/2016/ghg2016/ghgatta.pdf>

Table 11 Project & Emission Impact for proposed NOx and GHG Thresholds

Project & Emission Impact from Historical Review Data		
	% of projects above threshold	Emission Contribution
10,000 (MTCO ₂ e/yr)	11%	82%
4,000 (MTCO ₂ e/yr)	19%	90%
55 (NO _x lbs/day)	12%	82%

Establishing efficiency matrix

The District believes that each land use project should be responsible for its related GHG emissions. According to Table 10, there are 89% of projects with emissions below 10,000 MT CO₂e/yr. If the District only applies the threshold of 10,000 MT CO₂e/yr, it could penalize highly-efficient projects merely for being larger and allow very inefficient projects to pass through without mitigation merely for being smaller. Therefore, the District also proposes an efficiency matrix for projects which have emissions equal to or below 10,000 MT CO₂e/yr. The proposed efficiency matrix contains the set of efficiency conditions that smaller projects must meet, based on the type of land categories (residential or non-residential), as well as Placer County’s special land use setting (urban or rural area).

The current GHG efficiency thresholds adopted by the other air districts or lead agencies are either on a per capita basis or a “service population” basis (the sum of the number of jobs and the number of residents provided by a mixed-use project). This methodology identifies land use related GHG emissions in a state or region inventory, divided by the projected statewide or regional population and employees at the target year. However, there is no available land use related GHG emission estimation for Placer County, and no suitable employment information for Placer County to estimate how many jobs would be offered by the proposed land use projects (e.g., shopping center, office building, or industrial warehouse). The District’s proposed efficiency matrix includes a “per capita” metric which is consistent with the methodology used by other air districts, and also provides an additional metric, based on available data today, for non-residential land use projects within Placer County.

District staff utilized CalEEMod as the tool to develop the efficiency matrix. As previously stated, CalEEMod is a statewide land use emissions computer model used by government agencies, land use planners, and environmental professionals to quantify potential GHG emissions from a variety of land use projects. The model quantifies land use related GHG emissions from mobile sources, energy use, solid waste disposal, vegetation planting and/or removal, and water use. The model is developed in collaboration with various data including emission factors, trip lengths, utility usage, meteorology, source inventory, and special land use setting (urban or rural) provided by the various public agencies to account for local special requirements and conditions in Placer County. Therefore, the emission estimation from CalEEMod would be considered as representable information for projects within Placer County.

District staff used the year 2030 as the target year of the efficiency matrix for Placer County. The year 2030 has been selected in consideration of SB32 and the Clean Energy and Pollution Reduction Act (SB350)²⁶. SB350 was signed into law in October 2015, establishing new clean energy, clean air and GHG reduction goals for 2030 and beyond. SB32, which was signed into law in September 2016, expands the statewide GHG reduction targets to 40 percent below the 1990 levels by 2030. These legislative actions set 2030 as the mid-term target year, while continuing to pursue California’s long-term climate goal by 2050. At this time, District staff selected 2030 as the scenario to develop the efficiency conditions for new land use projects within Placer County. District staff will reassess and make necessary modifications for efficiency metrics when the state scopes the detailed scheme for the 2030 target.

Under the 2030 scenario, District staff identified four different efficiency conditions for each of the location settings (i.e., urban and rural), as well as new land use types (residential and nonresidential) in Placer County. The modeling analysis assumes energy efficiency resulting from 50% renewable electricity procurement achievement in 2030 (SB350); compliance with latest Title 24 energy efficiency standard (2016 standards)²⁷; and mobile source emissions in 2030 affected by statewide regulations such as clean car standards (AB1493)²⁸ and low carbon fuel standard (LCFS)²⁹. The efficiency conditions for residential projects are presented as MT CO₂e per capita based on the default household size of 2.83 in CalEEMod. The household size can be overwritten in the model for land use projects located within a jurisdiction with a value different from the default setting. For non-residential projects, the efficiency conditions are presented as MT CO₂e per 1,000 square feet (sf).

The proposed efficiency matrix were identified by selecting single family residential and general commercial usage for the residential and non-residential land use types, as well as urban and rural location settings in 2030. The lead agency will decide which project location settings (urban or rural) would be appropriate for the proposed project description. For a mixing-use type project, District staff suggests the lead agency can decide which land use types (residential or non-residential) would be more suitable for the proposed mixing-use designs. District staff presumes the proposed efficiency matrix would assist to promote projects which consider higher density and mixing-use designs, since townhouses or apartments would have better efficiency results than single-family units. Table 12 summarizes the District’s proposed efficiency matrix for projects with GHG emissions equal to or below 10,000 MT CO₂e/yr. The detailed modeling scenario assumptions and corresponding CalEEMod modeling outputs for the efficiency condition analysis are presented in Appendix C.

Table 12 District proposed efficiency matrix

Efficiency Matrix			
Residential (MT CO ₂ e/capita*)		Non-residential (MT CO ₂ e/1,000 square feet)	
Urban	Rural	Urban	Rural
4.5	5.5	26.5	27.3

* based on CalEEMod default household size (2.83)

²⁶ California Clean Energy and Pollution Reduction Act requires the utility providers to achieve 50% of renewable electricity procurement in 2030. https://leginfo.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB350

²⁷ CEC Building Energy Efficiency Program. <http://www.energy.ca.gov/title24/> Accessed August 15, 2016

²⁸ Clean Car Standards-Pavley, Assembly Bill 1493 <http://www.arb.ca.gov/cc/ccms/ccms.htm>

²⁹ CARB Low Carbon Fuel Standard regulation <http://www.arb.ca.gov/fuels/lcfs/lcfs.htm>

Establishing De Minimis Level for exempting GHG impact analysis

Placer County has special geographical features with a lot of rural areas. A smaller project such as minor land division could be proposed in these rural areas and are subject to CEQA review. Because of the project size, it may have fewer options to mitigate its own GHG emissions. The District proposes to identify a “De Minimis” level which will relieve very small projects with a potentially significant conclusion, and therefore require implementing mitigation measures. In Table 10, staff found that more than 50% of the projects with GHG emissions less than 1,100 MT CO₂e/yr and these projects would contribute only 3% of the total GHG emissions from projects reviewed over the thirteen year period. In light of this result, the District identifies that projects emitting less than 1,100 MT CO₂e per year in Placer County would be expected to have a “De Minimis”³⁰ impact because they contribute a relatively small fraction of the cumulative GHG emissions in Placer County. These smaller projects will still be required to reduce their GHG emissions through the state and local regulations compliance such as building codes and energy efficiency standards.

Corresponding size of project to the proposed GHG thresholds

District staff uses the CalEEMod to estimate the potential project sizes corresponding to the proposed GHG Bright-line threshold and De Minimis level, as shown in Table 13 and 14. The detailed modeling scenario assumptions, settings, and modeling outputs are presented in Appendix D.

Table 13 Corresponding size of project to proposed Bright-line threshold (10,000 MT CO₂e/yr)

Residential (# of units)			Commerical/Industrial (sf)		
Single family	Condo	Apartment	General Commercial	General Office	General Industrial
646	957	1,044	323,955	756,170	901,709

Table 14 Corresponding size of project to proposed De Minimis Level (1,100 MT CO₂e/yr)

Residential (# of units)			Commerical/Industrial (sf)		
Single family	Condo	Apartment	General Commercial	General Office	General Industrial
71	105	115	35,635	83,180	99,189

Conclusion

District staff develops GHG thresholds to assist the local jurisdictions with determining the potential GHG impacts from land use projects. The proposed GHG thresholds consider 1) existing GHG significance thresholds adopted by other air districts, 2) the District’s historical CEQA review data, 3) the statewide GHG emission reduction target and regulation requirement beyond 2020, and 4) the special geographic features in Placer County. The Districts’ proposed GHG thresholds, including the Bright-line threshold, efficiency matrix, and De Minis level, can cover 97% of GHG emission contribution from land use development. The District believes the

³⁰ The term “De Minimis” is used in air quality to represent a rate of emissions less than or equal to a rate for which a State or local reviewing agency has approved a case-by-case demonstration that impacts are de minimis. Online source: <http://www.arb.ca.gov/fcaa/tiii/t3info/glossary.htm>

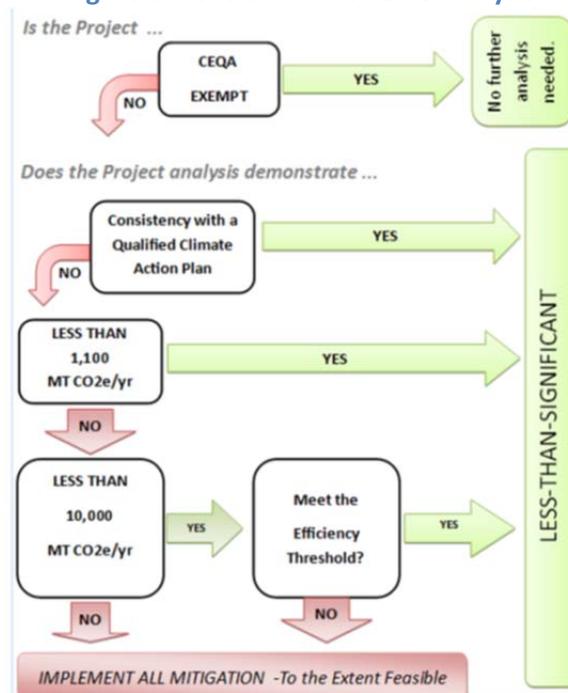
proposed GHG significance thresholds should present a balance between the growths based on Placer County’s special conditions and assumed responsibility for its share of the GHG reductions under CEQA to assist California in achieving its GHG reduction goals. Table 15 presents the District’s proposed significance thresholds for analyzing GHG impacts.

Table 15 District proposed GHG thresholds

Bright-line Threshold 10,000 MT CO₂e/yr			
Efficiency Matrix			
Residential		Non-residential	
Urban	Rural	Urban	Rural
(MT CO ₂ e/capita)		(MT CO ₂ e/1,000sf)	
4.5	5.5	26.5	27.3
De Minimis Level 1,100 MT CO₂e/yr			

Alternatively, local jurisdictions can develop their own climate action plans. Projects which are located in a jurisdiction with an adopted climate action plan (CAP) or greenhouse gas reduction plan (GHGRP) that meets the requirements of CEQA Guidelines section 15183.5 (b) can be deemed as less than cumulatively considerable, if demonstrating consistency with the jurisdiction’s CAP or GHGRP in lieu of applying the District’s proposed GHG thresholds. Figure 6 shows the process chart for GHG analysis proposed by the District in Placer County.

Figure 6 Process chart for GHG analysis



Thresholds for land Use Project Construction Phase and Stationary Source Project

The District also proposes using the Bright-line threshold of 10,000 MT CO₂e/yr for determining the level of significance for the land use construction phase and the stationary source project's operational phase. GHG emissions from the construction phase are considered temporary in nature, and would result in short-term impacts. In addition, using 10,000 MT CO₂e/yr as the threshold for stationary source projects is consistent with other adopted thresholds throughout California, and it is consistent with the CARB mandatory reporting level for stationary sources.